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February 7, 2006

TO : U.S. PATENT AND TRADEMARK OFFICE

ATTN: Examiner James S. WOZNIAK
Serial No. 09/940,522 – filed August 29, 2001
Group Art Unit 2655
Attorney's Docket No. 1359.1052

FAX NO.: (571) 273-8300 TELEPHONE:

FROM: H. J. Staas

RE: AMENDMENT

NO. OF PAGES (Including this Cover Sheet) 17

COMMENTS:

S&H Form: (02/05)

REPLY/AMENDMENT FEE TRANSMITTAL

Attorney Docket No.	1359.1052
Application Number	09/940,522
Filing Date	August 29, 2001
First Named Inventor	Satoru WATANABE, et al.
Group Art Unit	2655
Examiner Name	WOZNIAK, JAMES S

AMOUNT ENCLOSED	0.00

FEE CALCULATION (fees effective 12/08/04)

CLAIMS AS AMENDED	Claims Remaining After Amendment	Highest Number Previously Paid For	Number Extra	Rate	Calculations
TOTAL CLAIMS	15	- 15 =	0	X $ 50.00 =	$ 0.00
INDEPENDENT CLAIMS	9	- 9 =	0	X $ 200.00 =	0.00

Since an Official Action set an original due date of February 7, 2006, petition is hereby made for an extension to cover the date this reply is filed for which the requisite fee is enclosed (1 month ($120)); (2 months ($450)); (3 months ($1,020)); (4 months ($1,590)); (5 months ($2,160):	
If Notice of Appeal is enclosed, add ($500.00)	
If Statutory Disclaimer under Rule 20(d) is enclosed, add fee ($130.00)	
Information Disclosure Statement (Rule 1.17(p)) ($180.00)	
Total of above Calculations =	$ 0.00
Reduction by 50% for filing by small entity (37 CFR 1.9, 1.27 & 1.28)	
TOTAL FEES DUE =	$ 0.00

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(2) If entry (2) is less than 20, change entry (2) to "20".
(4) If entry (4) is less than entry (5), entry (6) is "0".
(5) If entry (5) is less than 3, change entry (5) to "3".

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SUBMITTED BY: STAAS & HALSEY LLP			
Typed Name	H. J. Staas	Reg. No.	22,010
Signature		Date	February 7, 2006

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By: Kris P. Adam
Date 2-7-06

Docket No.: 1359.1052

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Satoru WATANABE, et al.

Serial No. 09/940,522 Group Art Unit: 2655

Confirmation No. 4691

Filed: August 29, 2001 Examiner: WOZNIAK, JAMES S

For: VOICE INTERACTIVE SYSTEM AND VOICE INTERACTIVE METHOD

AMENDMENT

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

This is in response to the Office Action mailed November 7, 2005, and having a period for response set to expire on February 7, 2006.

The following amendments and remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

Docket No.: 1359.1052 Serial No. 09/940,522

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND 9 and 10 in accordance with the following:

1. (CANCELED)

2. (CANCELED)

3. (PREVIOUSLY PRESENTED) A voice interactive system, comprising:

a voice information input part inputting voice information of a first user from a first user terminal;

a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

a voice information output part outputting the synthesized voice, wherein the voice information mediation part monitors at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in each of a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction and a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determines that an interaction between the first user and the interaction engine is not being smoothly conducted and allows a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal.

4. (CANCELED)

5. (PREVIOUSLY PRESENTED) A voice interactive system, comprising:

a voice information input part inputting voice information of a first user from a first user terminal;

a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

a voice information output part for outputting the synthesized voice, the voice information mediation part:

monitoring at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal;

determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the first user terminal to the interaction engine; and

changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, to (2) parallel input, and to (3) switching, and in a case where the participation mode is (1) involvement, permitting the third-party user to be involved in the interaction between the first user and the interaction engine, updating contents of the interaction from the interaction engine to the first user before the content of the interaction is output to the first user, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input with respect to the interaction engine in parallel with the first user, and in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user in place of the interaction engine.

6. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 3, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, as a helper, and the helper most appropriate for the contents of the voice information is selected.

7. (PREVIOUSLY PRESENTED) A voice interactive system, comprising:

a voice information input part inputting voice information of a first user from a first user terminal;

a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

a voice information output part outputting the synthesized voice, wherein the voice information mediation part monitors at all times whether or not an interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allows a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from a terminal other than the first user terminal;

a help request notification part operative, in a case where the voice information mediation part determines that the interaction is not being smoothly conducted, to notify a third-party helper user of such fact, and:

in a case where the help request notification part notifies the third-party user of the fact that the first user's interaction is not being smoothly conducted, the third-party user is capable of voluntarily interacting with the first user, and

in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of time or longer, in an interaction between the third-party user and the first user, the interaction engine interacts only with the third-party user.

8. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 3, further comprising

an interaction history display part displaying the interaction history stored in the interaction history information storage part to a third-party user; and

a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

9. (CURRENTLY AMENDED) A voice interactive method, comprising:

inputting a first user's voice information from a first user terminal;

conducting voice recognition with respect to the voice information, and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

outputting a synthesized voice;

controlling a transmission path of the voice information, comprising:

extracting contents of a response corresponding to the voice information by referring to a knowledge database, and creating a synthesized voice in accordance with the contents of the response, and

~~monitoring at all times whether or not the user's interaction is being smoothly conductedand, in a case where it is determined that the user's interaction is not being smoothly conducted, allowing a third-party user to participate, as a helper, in the interaction between the first user and an interaction engine from another terminal.~~monitoring at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in each of a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction and a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determining that an interaction between the first user and the interaction engine is not being smoothly conducted and allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first

user terminal.

10. (CURRENTLY AMENDED) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

inputting a first user's voice information;

conducting voice recognition with respect to the voice information, and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information; and

outputting a synthesized voice, wherein:

in the controlling of a transmission path of the voice information, contents of a response corresponding to the voice information being extracted by referring to a knowledge database, and a synthesized voice being created in accordance with the contents of the response, and

in the controlling of the transmission path of the voice information, ~~monitoring at all times whether or not the user's interaction is being smoothly conducted and, in a case where it is determined that the user's interaction is not being smoothly conducted, allowing a third-party user to participate, as a helper, in the interaction between the first user and an interaction engine from another terminal.~~monitoring at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in each of a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction and a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determining that an interaction between the first user and the interaction engine is not being smoothly conducted and allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal.

11. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 5, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, and most appropriate for the contents of the voice information.

12. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 7, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, and most appropriate for the contents of the voice information.

13. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 5, further comprising:

an interaction history display part displaying the interaction history stored in the interaction history information storage part to a third-party user; and

a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

14. (ORIGINAL) A voice interactive system according to claim 7, further comprising an interaction history display part displaying the interaction history stored in the interaction history information storage part to a third-party user; and

a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

15. (CURRENTLY AMENDED) A voice interactive method, comprising:

inputting voice information of a first user from a first user terminal;

conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

outputting the synthesized voice, the voice information mediation part:

monitoring at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal ;

determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the first user terminal to the interaction engine; and

changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, to (2) parallel input, and to (3) switching, and in a case where the participation mode is (1) involvement, permitting the third-party user to be involved in the interaction between the first user and the interaction engine, updating contents of the interaction from the interaction engine to the first user before the content of the interaction is output to the first user, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input with respect to the interaction engine in parallel with the first user, and in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user in place of the interaction engine.

16. (CURRENTLY AMENDED) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

inputting voice information of a first user from a first user terminal;

conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

outputting the synthesized voice, the voice information mediation part:

monitoring at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal ;

determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the first user terminal to the interaction engine; and

changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, to (2) parallel input, and to (3) switching, and in a case where the participation mode is (1) involvement, permitting the third-party user to be involved in the interaction between the first user and the interaction engine, updating contents of the interaction from the interaction engine to the first user before the content of the interaction is output to the first user, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input with respect to the interaction engine in parallel with the first user, and in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user in place of the interaction engine.

17. (PREVIOUSLY PRESENTED) A voice interactive method, comprising:

inputting voice information of a first user from a first user terminal;

conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

outputting the synthesized voice, while monitoring at all times whether or not an interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from a terminal other than the first user terminal, and:

in a case where the interaction is not being smoothly conducted, notifying a third-party helper user of such fact,

in a case where the third-party user is notified of the fact that the first user's interaction is not being smoothly conducted, the third-party user is capable of voluntarily interacting with the first user, and

in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of time or longer, in an interaction between the third-party user and the first user, controlling the interaction engine to interact only with the third-party user.

18. (PREVIOUSLY PRESENTED) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

inputting voice information of a first user from a first user terminal;

conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

outputting the synthesized voice, while monitoring at all times whether or not an

interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from a terminal other than the first user terminal, and:

in a case where the interaction is not being smoothly conducted, notifying a third-party helper user of such fact,

in a case where the third-party user is notified of the fact that the first user's interaction is not being smoothly conducted, the third-party user is capable of voluntarily interacting with the first user, and

in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of time or longer, in an interaction between the third-party user and the first user, controlling the interaction engine to interact only with the third-party user.

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REMARKS

In accordance with the foregoing, claims 1, 2, and 4 were previously cancelled, claims 3, 5, 7, and 9-16 are currently amended, as detailed hereinafter, to clarify the distinction over the prior art and rejections of the Action. No new matter is presented and, accordingly, approval and entry of the amended claims are respectfully requested.

STATUS OF CLAIMS

Claims 3 and 5-18 are pending the application. Claims 7, 12, 14, 17 and 18 are allowed. Claims 3, 5, 6, 8-11, 13, 15 and 16 are rejected.

ITEM 2: EXAMINER'S RESPONSE REGARDING ARGUMENTS AS TO CLAIMS 5 AND 15-16

Applicants argued that as to claims 5, 15 and 16, the prior art of record fails "to teach a progressive operator interaction (Amendment, pages 15-16). In response, the Examiner urges that Davis et al. "teaches such a progressive interaction in the form of a standard update (involvement) of the user entry form at an operator station (col. 9, lines 1-11), ...[and]... direct interaction (parallel input of data) through data (col. 11, lines 36-58)...." It is respectfully submitted that the Examiner misinterprets the terminology of claim 5.

In claim 5, "involvement" means a state where "the third party (operator) can update the contents of interaction between the first user and the interaction engine", and the "parallel input" means the state where "the third party can conduct an input to the interaction engine in parallel with the first user". The meanings of "involvement" and "parallel input" which should be given to the terms of the claims are not disclosed in col. 11, line 36, col. 12, line 20 of Davis and, accordingly, Applicants' prior arguments are submitted to be adequate, alone, to distinguish over the prior rejection.

ITEM 5: REJECTION OF CLAIMS 5, 11, 13 AND 15-16 FOR OBVIOUSNESS OVER BOHACEK ET AL. IN VIEW OF MARX ET AL. (U.S. PATENT 6,173,266) AND DAVIS ET AL. (U.S. PATENT 5,583,922)

The rejection is respectfully traversed.

In mounting this new ground of rejection, the Examiner does not compare the limitation of claim 5 "determines a progress of interaction in accordance with an interaction time from a beginning of the user's interaction and the number of accesses to the interaction engine" with the cited Marx reference in a correct manner. To the contrary, the Examiner erroneously describes the limitation of claim 3 at page 8, line 7 from the bottom to the last line on page 8 of the Office Action. The rejection is fatally defective, since not addressing terminology of claim 5.

More particularly, as here pertinent, the Examiner points out that Daudelin discloses in col. 11, lines 23-54 that:

> ...in a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in ordinary interaction or in a case where the average reaction time is below a second threshold value that is a lower limit of a reaction time in ordinary interaction, allows a third-party user to participate".

(Action at page 5, third paragraph; emphasized recitations appear in Daudelin but not in the Examiner's citation of same)

To the contrary of the Examiner's interpretation of Daudelin, quoted above, Daudelin describes in col. 11, lines 26-28 that "if no response is made by the called customer within a predetermined interval". This description may correspond to the clause of the claims of "in a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in ordinary interaction". However, Daudelin does not disclose the further recitation, common to claims 3, 9 and 10, that "in a case where the average reaction time is below a second threshold value that is a lower limit of a reaction time in ordinary interaction".

As recited in claims 3, 9 and 10, by allowing a third party user to participate "in a case where the average reaction time is below a second threshold value that is a lower limit of a reaction time in ordinary interaction", an operator (third party) is allowed to appropriately participate in accordance with an interaction situation of a user, using the nature peculiar to interaction: "when interaction becomes redundant, a reaction time is likely to become short gradually (page 10, lines 7-18 of the specification)".

Accordingly, independent claims 3, 9 and 10 are submitted to distinguish patentably over the references relied upon in Item 4 of the Action, as applied to claims 3, 6 and 8 as well as to claims 9 and 10 as hereinabove explained, whether those references are taken singularly or in any proper combination.

LACK OF *PRIMA FACIE* DEMONSTRATION OF OBVIOUSNESS OF THE COMBINATION OF PRIOR ART REFERENCES RELIED UPON RENDERS ALL OF THE REJECTIONS FATALLY DEFECIENT

In each of the foregoing combinations, the basic thrust of the justification for the combination resides in the contention that "it would have been obvious to a person of ordinary skill in the art..." to modify the teachings of one reference with those of another - - and, indeed, Item 4 relies on Bohacek, Daudelin and Davis whereas Item 5 relies on the different combination of Bohacek, Marx and Davis, the latter being urged to be an obvious combination on grounds equally deficient as those advanced in Item 4 of the Action. MPEP 2143.2143.03.

operator when a user fails to process a respon... reaction time interval, however, Daudelin recites...."